



SP 23-96

COAST GUARD SPECIAL PERMIT 23-96

This Special Permit is issued pursuant to 46 CFR 148.01-9 of the U.S. Coast Guard (USCG) Carriage of Solid Hazardous Materials in Bulk Regulations to authorize bulk shipments of radioactive material (surface contaminated objects) under conditions as described herein. This permit does not relieve any shipper or carrier from compliance with any applicable requirement of 46 CFR 148 of the USCG Regulations, except as specifically provided for herein.

1. **BASIS** -Radian International's facsimile letter of September, 1996
2. **COMMODITY** - Radioactive material, surface contaminated objects (SCO-1).
3. **PROPER SHIPPING NAME AND IDENTIFICATION NUMBER**

Radioactive Material, Surface Contaminated
Objects, UN 2913
4. **REGULATION WAIVED OR AFFECTED** - 46 CFR 148.01-7,
46 CFR 148.04-1.
5. **AUTHORIZED SHIPPER**- Radian International
6. **MODE OF TRANSPORTATION AUTHORIZED** - Cargo vessel.
7. **CLASSIFICATION** - Class 7
8. **PROPERTIES** - The radioactivity of SCO-1 is low. This description includes solid objects of non-radioactive material having radioactive material distributed on their surfaces on which:
 - a. The non-fixed contamination on the accessible surface, averaged over 300 cm² (or the area of the surface if less than 300 cm²), does not exceed 4 Bq/cm² (10⁻⁴ μCi/cm²) for beta and gamma emitters and low toxicity alpha emitters, or 0.4 Bq/cm² (10⁻⁵ μCi/cm²) for all other alpha emitters;

- b. The fixed contamination on the accessible surface, averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2), does not exceed $4 \times 10^4 \text{ Bq/cm}^2$ ($1 \text{ } \mu\text{Ci/cm}^2$) for beta and gamma emitters and low toxicity alpha emitters, or $4 \times 10^3 \text{ Bq/cm}^2$ ($0.1 \text{ } \mu\text{Ci/cm}^2$) for all other alpha emitters; and
- c. The non-fixed contamination plus the fixed contamination on the inaccessible surface, averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2), does not exceed $4 \times 10^4 \text{ Bq/cm}^2$ ($1 \text{ } \mu\text{Ci/cm}^2$) for beta and gamma emitters and low toxicity alpha emitters, or $4 \times 10^3 \text{ Bq/cm}^2$ ($0.1 \text{ } \mu\text{Ci/cm}^2$) for all other alpha emitters.

9. SPECIAL TRANSPORTATION REQUIREMENTS -

- a. Each shipment of radioactive material (SCO-1) under this Special Permit must be consigned as "exclusive use" as defined in 49 CFR 173.403.
- b. The quantity of radioactive material (SCO-1) in a single cargo space or compartment may not exceed $100A_2$ as defined in 49 CFR 173.427.
- c. The radiation level (external dose rate) at three meters from the unshielded cargo of SCO-1 shall not exceed 10 mSv/hr (1 rem/hr).
- d. The shipment must be made to a designated waterfront facility that meets the requirements of 33 CFR 126.05(a).
- e. The cognizant Coast Guard Captain of the Port must be informed at least 24 hours in advance of unloading operations.
- f. During unloading operations, precautions must be taken to minimize personnel exposure to dust. Persons working in contact with SCO-1 must wear protective clothing and gloves. If clothing becomes contaminated, it must be cleaned before reuse. When necessary, and in accordance with OSHA regulations, (29 CFR 1910.134), dust respirators must be worn.
- g. Inhalation and ingestion of dust or residue from SCO-1 should be avoided. During unloading operations, smoking, eating and drinking shall be prohibited in the holds and other stowage spaces, on the weather deck of

the vessel and in the vicinity of cargo handling operations.

- h. During and unloading operations, precautions must be taken to minimize dispersal of this material to the environment.
- i. Foodstuffs may not be stowed in the same cargo compartment with SCO-1.
- j. To prevent dispersal of the material the hatch covers must be closed at all times except during and unloading.
- k. There shall be no release of radioactive material outside the cargo space in which surface contaminated objects are stowed.
- l. Disposal of cargo residues and contaminated items must be in accordance with applicable EPA and State laws and regulations.
- m. Cargo spaces used for the transport of SCO-1 may not be used for other cargoes until monitored for residual activity by a qualified person such that the non-fixed contamination on any surface when averaged over an area of 300 cm² does not exceed the following levels:
 - (1) 4 Bq/cm² (10^{-4} μ Ci/cm²) for beta and gamma emitters and the low toxicity alpha emitters; natural uranium, depleted uranium, natural thorium, uranium-235, or uranium-238, thorium-232, thorium-228 and thorium-230 when contained in ores, physical or chemical concentrates; radionuclides with a half-life of less than 10 days; and
 - (2) 0.4 Bq/cm² (10^{-5} μ Ci/cm²) for all other alpha emitters.
- n. Each bill of lading, shipping order, or other shipping paper issued in connection with shipments under the terms herein, must comply with 46 CFR 148.02-1 and 49 CFR 172.203(d), and must bear the notation "**USCG Special Permit 23-96.**"
- o. When SCO-1 is being transported by cargo vessel, a copy of this permit must be on board the vessel.

10. **REPORTING REQUIREMENTS** - Any incident or casualty occurring while shipping under the terms of this permit shall be reported in accordance with 49 CFR 171.15, and a copy of the written report forwarded to the Commandant (G-MSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001 at the earliest practicable moment. Any release of radioactive material shall be reported as required by the EPA regulations in 40 CFR Part 302. In addition, a record of experience under the terms of this special permit including any casualties or difficulties encountered must be sent to the Commandant (G-MSO-3) upon request for renewal.

11. **EXPIRATION DATE** - December 31, 1996.

Authorized by:

K. S. COOK
Commander, U.S. Coast Guard
Chief, Hazardous Materials
Standards Division
By direction of the Commandant

DATE